grams per 100 ml. The amylase content of the ascitic fluid is elevated. Biopsy of the skin lesion may help in making the diagnosis. All the pathophysiologic mechanisms involved in the formation of pancreatic ascites are not known. In some patients, there may be pseudocysts or disruption of the pancreatic duct.

If the patient is stable, medical therapy should be tried for a few weeks. Treatment is based on "resting" the pancreas and giving good nutritional support by elemental diet or parenteral hyperalimentation. Spontaneous resolution of the pancreatic ascites occurs in many patients. If there is clinical deterioration or if the ascites does not resolve, operation is indicated. Pancreatography at operation or endoscopic retrograde pancreatography just before operation should be done to help determine appropriate therapy. Surgical alternatives include resection or internal drainage of the pseudocyst or the ruptured pancreatic duct. In poor-risk patients external drainage may be the initial procedure. The diagnosis of pancreatic ascites is important because in some patients operative therapy is specific and often curative.

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The Continent Ileostomy

THE DEVELOPMENT of an internal ileal reservoir following total proctocolectomy was described by Kock in 1969. Full continence was not achieved until Kock constructed a valve by intussuscepting a nipple of the efferent limb of the ileal reservoir. The pouch requires roughly 40 cm of the distal ileum and exits at skin level on the abdominal wall. It is catheterized three to four times daily following recovery from operation and gradually increases its capacity to 500 ml or more after three to four weeks.

Experience in this country attests to the effectiveness of the continent ileostomy and to its widespread acceptance by patients when it functions properly. The contraindications to primary construction of this reservoir include patients with Crohn's disease of the colon and patients with ulcerative colitis requiring emergency intervention for hemorrhage, sepsis or toxic megacolon. Early complications include suture line leakage and difficulties in catheterizing the pouch due to malalignment of the exiting efferent limb. Late complications include peristomal fistula formation and loss of continence due to reduction of the intussuscepted nipple valve because of inadequate fixation.

Although the experience to date in this country is somewhat limited, there is considerable demand from patients with conventional ileostomies to have a continent ileostomy constructed. Although our limited experience verifies this trend, it also stresses the importance of the procedure being done only by those surgeons competent in gastrointestinal surgical procedures.

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Hepatic Tumor, Hemoperitoneum and Oral Contraceptives

WITHIN THE PAST YEAR there has been a growing number of British and American reports of benign hepatic neoplasms developing in young women taking oral contraceptives. In many instances, rupture of the tumor with sometimes fatal intraperitoneal hemorrhage has been the first clinical event. However, upper abdominal pain, often incorrectly attributed to gall bladder disease, has been the most prominent symptom. An upper abdominal mass may be present.

These symptoms and findings in the fourth decade in a patient taking oral contraceptives should alert a physician to the possibility of this lesion. Liver function tests are not diagnostic and the alpha-fetoprotein determination has been consistently negative. Hepatic scan, sonography and selective angiography may be helpful in establishing the diagnosis before operation.

The natural history of the lesion is not known. Lesions usually are solitary but multiple nodules have been observed. The lesion is apparently benign, and many different pathologic diagnoses (including hepatic adenoma, nodular hyperplasia, hamartoma and well differentiated hepatoma) have been made and have contributed to the confusion in classification of the lesions.

In most instances, resection of the lesion by partial hepatectomy is indicated, but there is some evidence suggesting that solid lesions may regress or remain stationary upon discontinuance of the pill. While a cause-and-effect relationship

with the medication has not been established, the number of cases continuing to be reported seems to support such a relationship. Other hepatic effects of these agents have been well documented. A registry of cases established by Kent and Nissen was announced in the August 1975 issue of this journal [West J Med 123:145, Aug 1975].

This entity should be considered in the differential diagnosis of any patient taking oral contraceptives in whom there are upper abdominal symptoms, or findings consistent with hemoperitoneum. Emergency operation to control bleeding may be mandatory.

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Evaluation of Thyroid Nodules

THE MAIN REASON thyroid nodules are of concern to patients and clinicians is the possibility of thyroid malignancy. Certain conditions—such as a history of radiation exposure, especially in childhood, or the finding on physical examination of a hard discrete nodule or palpable cervical nodes—suggest that a thyroid nodule is malignant. Radioiodine scanning is the most important laboratory procedure for evaluating thyroid lesions since the information obtained helps in differentiating between multinodular goiter and solitary thyroid nodules, and also distinguishes between active, "warm or hot" nodules or inactive "cool or cold" nodules. The reason this is important is that thyroid cancer is infrequent in multinodular goiters and rare in "active" thyroid nodules but occurs in about 25 percent of patients with solitary cold thyroid nodules. Numerous other isotopic studies (including those using technetium, cesium, gallium and selenomethionine) have been used to differentiate between benign and malignant thyroid tumors but the results of these studies are not reliable enough for selection of appropriate treatment.

The recent use of ultrasound in evaluating thyroid nodules, however, seems encouraging since cystic thyroid nodules are rarely malignant. Approximately 20 percent of cold solitary thyroid tumors are cystic and aspiration of these cysts usually results in cure. We would recommend that routine evaluation of patients with solitary thyroid nodules include both radioiodine scanning and ultrasound. When cysts are present they should be treated by aspiration and suppression of thyroid stimulating hormone with exogenous thyroid hormone. One might question carrying out needle biopsy in all thyroid nodules. The main problem with biopsy is that the specimen obtained is often unrepresentative of the most important histologic status of the gland.

Two new tests that are useful adjuncts in diagnosing thyroid cancer are serum calcitonin and thyroglobulin radioimmunoassays. Medullary carcinoma of the thyroid can now be diagnosed in family members of patients with Sipple's syndrome, by determining basal and calcium or pentagastrin stimulated levels of serum calcitonin, before this tumor is clinically apparent. Serum thyroglobulin levels, in contrast, are often elevated in patients with differentiated thyroid cancer but not in patients with medullary thyroid cancer. The latter test is especially useful in following patients in whom operations for differentiated thyroid cancer have been done.

A careful history, physical examination and intelligent use of laboratory tests will help in the selection of patients who require and who will benefit from thyroidectomy. Thyroidectomy carried out by surgeons experienced in endocrine surgical operations is associated with minimal morbidity and rare mortality.

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Parietal Cell Vagotomy

IN THE PAST five years a new operation, parietal cell vagotomy, has been given a rather extensive trial in several surgical units in the treatment of duodenal ulcer disease. Although conclusions as to its effectiveness must still be regarded as tentative, the continued success of this operation as reported by those with the greatest experience is increasingly significant.

Parietal cell vagotomy consists of vagally denervating the proximal two thirds of the stomach, the site of acid production. The vagal innervation to the antrum, which travels along the lesser curvature in the nerves of latarjet, is deliberately spared so as not to interfere with vagal control